MISSION SUPPORT

FISCAL YEAR 2000 ESTIMATES

BUDGET SUMMARY

OFFICE OF MANAGEMENT SYSTEMS AND FACILITIES **CONSTRUCTION OF FACILITIES**

SUMMARY OF RESOURCES REQUIREMENTS

	1998 OPLAN 9/29/98	1999 OPLAN 12/22/98	2000 PRES BUDGET	Page Number
		(Thousands of Dollars)		
International Space Station Appropriation	--	1,200	--	
Launch Vehicles and Payload Operations Appropriation	8,200	7,600	11,000	MS 4-8
Science, Aeronautics and Technology Appropriation	5,900	16,300	14,200	MS 4-15
*Mission Support Appropriation	122,400	168,500	181,000	MS 4-25
Total	136,500	193,600	206,200	

*See page 4-25 for center distribution.

PROGRAM GOALS

The goal of the Construction of Facilities program is to ensure that the facilities critical to achieving NASA's space and aeronautics program are functioning effectively, efficiently, and safely, and that NASA installations conform with requirements and initiatives for the protection of the environment and human health.

STRATEGY FOR ACHIEVING GOALS

NASA facilities are critical to the development and operation of the space transportation system. They are necessary to sustain payload and launch operations, as well as critical National aeronautical and aerospace testing capabilities, that also support military and private industry users.

The Construction of Facilities (CoF) budget line item in the Mission Support appropriation provides for Discrete projects required for components of the basic infrastructure and institutional facilities. Almost all of these projects are capital repair. The Mission Support appropriation also includes Minor Revitalization projects (repair, rehabilitation, modernization, and modification of existing facilities), Minor Construction projects, Environmental Compliance and Restoration activities, the design of facilities projects, and advanced planning related to future facilities needs. Funding for construction projects required to conduct specific

Human Space Flight or Science, Aeronautics, and Technology programs or projects is included in the appropriate budget line item.

The Launch Vehicles and Payload Operations FY 2000 budget request provides Discrete projects to restore the wall and ceiling integrity of the Payload Changeout Room and the surfaces and slopes of Pad B at Kennedy Space Center and rehabilitate the 480 volt electrical distribution system in the External Tank Manufacturing Building at the Michoud Assembly Facility. It also includes minor projects less than $1,500,000 required to support specific programs. The Science, Aeronautics, and Technology budget request provides Discrete projects to restore the Meteorological Development Laboratory at Goddard Space Flight Center, replace the fan blades in the National Full-scale Aerodynamic Complex at Ames Research Center, replace the main drive in the 14x22-foot Subsonic Tunnel at Langley Research Center, and complete construction of an Optical Interferometry Development Laboratory at Jet Propulsion Laboratory.

Mission Support funding is requested in FY 2000 for Discrete projects to repair and modernize building and utility systems that have reached or exceeded their normal design life and cannot be economically maintained. These systems include mechanical, structural, cooling, steam, and electrical distribution at Ames Research Center, Dryden Flight Research Center, Goddard Space Flight Center, Johnson Space Center, Kennedy Space Center, Glenn Research Center and Marshall Space Flight Center. Also included are projects to rehabilitate the hydrostatic bearing runner on the 70-meter Antenna at Goldstone, Ca. and to upgrade the servo drives on the 70-meter antennas of the subnet. Should residual resources become available from these projects they will be used for urgently needed safety related facility requirements. Congress will be notified before work is initiated for any such project that exceeds $1,500,000.

The FY 2000 construction projects help preserve and enhance the capabilities and usefulness of existing facilities and ensure the safe, economical, and efficient use of the NASA physical plant. The Minor Revitalization program included in this request continues the necessary rehabilitation, modification, and repair of facilities. The Minor Construction program will primarily replace substandard facilities in cases where it is more economical to demolish and rebuild than it is to restore. In selected cases, additional square footage may be built when there are compelling reasons to support new or specialized technical and/or institutional requirements of a nature that cannot be provided by using existing facilities.

Funds requested for Facility Planning and Design cover advance planning and design requirements for potential future projects, preparation of facility project design drawings and bid specifications, master planning, facilities studies, and engineering reports and studies. Also included are critical functional leadership activities directed at increasing the rate of return of constrained Agency resources while keeping the facility infrastructure safe, reliable, and available.

Deferred Major Maintenance funding provides for projects that partially mitigate the Agency's growing backlog of maintenance and repair. Projects will be identified and prioritized based on the findings of the Agency's Core Capabilities Assessment currently underway.

The Environmental Compliance and Restoration (ECR) Program is critical to ensuring that statutory and regulatory environmental requirements and standards are met. NASA's environmental strategy demonstrates our commitment to protect the environment and provides for the protection and safety of human health. This commitment is achieved by focusing and directing our leadership and efforts into the four principal areas of compliance, remediation, restoration, and prevention. These areas provide the framework for meeting our current environmental needs and preparing NASA for future challenges. Concurrently, we are aggressively pursuing the use of the Energy Savings Performance Contracting (ESPC) mechanism to achieve the federal energy management goals for financing cost-effective energy conservation modifications at existing facilities.

CONSTRUCTION OF FACILITIES

FISCAL YEAR 2000 ESTIMATES

SUMARY OF BUDGET PLAN BY APPROPRIATION AND PROJECT

INSTALLATION AND PROJECT	FY 1998	FY 1999	FY 2000	Page Number
		(Thousands of Dollars)		
INTERNATIONAL SPACE STATION	--	1,200	--	
Minor Revitalization of Facilities at Various Locations, Not in excess of $1,500,000 per project	---	1,200	--	
LAUNCH VEHICLES AND PAYLAOD OPERATIONS	8,200	7,600	11,000	
Restore Pad Surfaces and Slopes, Pad B (KSC)	---	---	1,800	MS 4-9
Restore Wall and Ceiling Integrity, Payload Changeout Room, Pad B (KSC)	---	---	2,300	MS 4-11
Rehabilitate 480V Electrical Distribution System, External Tank Manufacturing Bldg. (MAF)	2,800	2,000	1,800	MS 4-13
Refurbish Pad A Fixed Support Structure Elevator System (KSC)	---	2,300	---	
Refurbish Pad A Flame Deflector and Trench (KSC)	---	1,500	---	
Repairs to Cleaning Cell E, Vertical Assembly Building (MAF)	---	1,800	---	
Repair of Payload Changeout Room Wall & Ceiling, Pad A (KSC)	2,200	---	---	
Restoration of Pad Surface & Slope, Pad A (KSC)	1,800	---	---	
Construct Landing Support Complex (SSC)	1,400	---	---	
Minor Revitalization of Facilities at Various Locations, Not in excess of $1,500,000 per project	---	--	2,400	
Facility Planning and Design	---	---	2,700	

CONSTRUCTION OF FACILITIES

FISCAL YEAR 2000 ESTIMATES

SUMARY OF BUDGET PLAN BY APPROPRIATION AND PROJECT

INSTALLATION AND PROJECT	FY 1998	FY 1999	FY 2000	Page Number
		(Thousands of Dollars)		
SCIENCE, AERONAUTICS, AND TECHNOLOGY	5,900	16,300	14,200	
SPACE SCIENCE				
Construct Optical Interferometry Development Laboratory (JPL)	---	2,500	2,500	MS 4-16
Restore Meteorological Development Laboratory (GSFC)	---	2,500	---	
Modification of Stratospheric Observatory for Infrared Astronomy (SOFIA) Ground Support Facility (ARC)	---	7,300	---	
LIFE AND MICROGRAVITY SCIENCE AND APPLICATIONS				
Modifications for the Installation of the Bio-Plex (JSC)	2,200	---	---	
EARTH SCIENCE				
Restore Meteorological Development Laboratory (GSFC)	---	1,500	1,000	MS 4-19
AERO-SPACE TECHNOLOGY				
Replace Fan Blades, National Full-Scale Aerodynamic Complex (ARC)	---	2,000	3,400	MS 4-21
Replace Main Drive for 14x22-Foot Subsonic Tunnel (LaRC)	---	500	7,300	MS 4-23
Rehabilitation and Modification of Test Stands (SSC)	3,700	---	---	

CONSTRUCTION OF FACILITIES

FISCAL YEAR 2000 ESTIMATES

SUMARY OF BUDGET PLAN BY APPROPRIATION AND PROJECT

INSTALLATION AND PROJECT	FY 1998	FY 1999	FY 2000	Page Number
		(Thousands of Dollars)		
MISSION SUPPORT				
Restore Electrical Distribution System (ARC)	---	2,200	2,700	MS 4-27
Rehabilitate Main Hangar Building 4802 (DFRC)	---	---	2,900	MS 4-29
Rehabilitate High Voltage System (GRC)	9,000	8,300	7,600	MS 4-31
Repair Site Steam Distribution System (GSFC)	---	2,000	2,900	MS 4-33
Restore Chilled Water Distribution System (GSFC)	2,171	---	3,900	MS 4-35
Rehabilitate Hydrostatic Bearing Runner, 70 meter Antenna, Goldstone (JPL)	---	---	1,700	MS 4-37
Upgrade 70 meter Antenna Servo Drive, 70 meter Antenna Subnet (JPL)	---	---	3,400	MS 4-39
Rehabilitate Utility Tunnel Structure and Systems (JSC)	---	---	5,600	MS 4-41
Connect KSC to CCAS Wastewater Treatment Plant (KSC)	---	---	2,500	MS 4-43
Repair and Modernize HVAC System, Central Instrument Facility (KSC)	---	---	3,000	MS 4-45
Replace High Voltage Load Break Switches (KSC)	---	---	2,700	MS 4-47
Repair and Modernize HVAC and Electrical Systems, Bldg. 4201 (MSFC)	---	---	2,300	MS 4-49
Repair Roofs, Vehicle Component Supply Buildings (MAF)	---	---	2,000	MS 4-51
Rehabilitation and Modification of Test Stands (SSC)	3,700	---	---	
Modernization of Process Cooling System, Numerical Aerodynamic Simulation Facility (ARC)	---	2,700	---	
Construct Data Interface Facility (DFRC)	---	2,000	---	
Restoration of Space/Terrestrial Application Facility (GSFC)	---	5,000	---	
Construction of In-Situ Instruments Laboratory (JPL)	---	5,000	---	
Replacement of Central Plant Chilled Water Equipment (JSC)	---	5,200	---	
Upgrade of Utility Annex Chilled Water Plant (KSC)	4,000	1,900	---	
Rehabilitation of Instrument Research Laboratory (LARC)	---	3,100	---	
Modification of Chilled Water System (MSFC)	6,700	7,200	---	
Rehabilitation and Modification of Hangar/Shop (DFRC)	2,700	---	---	

CONSTRUCTION OF FACILITIES

FISCAL YEAR 2000 ESTIMATES

SUMARY OF BUDGET PLAN BY APPROPRIATION AND PROJECT

INSTALLATION AND PROJECT	FY 1998	FY 1999	FY 2000	Page Number
		(Thousands of Dollars)		
MISSION SUPPORT (continued)				
Construction of Emergency Services Facility (JPL)	4,600	---	---	
Construction of Addition to Administration Building (SSC)	5,000	1,500	---	
Total Mission Support Discrete Projects	34,171	46,100	43,200	
Minor Revitalization of Facilities at Various Locations, Not in excess of $1,500,000 per project	56,729	68,400	65,500	MS 4-53
Minor Construction of New Facilities and Additions to Existing Facilities at Various Locations, Not in excess of $1,500,000 per project	1,100	---	5,000	MS 4-59
Facility Planning and Design	19,000	14,000	19,200	MS 4-62
Deferred Major Maintenance	---	---	8,000	MS 4-66
Environmental Compliance and Restoration	11,400	40,000	40,100	MS 4-69
Total - Mission Support	122,400	168,500	181,000	